### **VOLUME 6 SURVEILLANCE**

## **CHAPTER 2 PART 121, 135, AND 91K INSPECTIONS**

Section 36 Safety Assurance System: Inspect Parts 91K and 121/135 (10 or More)
Operator's Maintenance Records

# 6-986 REPORTING SYSTEM(S).

- **A. Program Tracking and Reporting Subsystem (PTRS).** For Title 14 of the Code of Federal Regulations (14 CFR) part 91K, use PTRS activity codes 3634, 3649, 5634, and 5649.
- **B. Safety Assurance System (SAS).** For 14 CFR parts 121/135 (10 or more), use SAS automation. This section is related to SAS Element 4.2.4 (AW), Recordkeeping.
- **6-987 OBJECTIVE.** This section provides guidance for inspecting a program manager/operator's aircraft maintenance records under parts 91K and 121/135 (10 or more) aircraft.
- **6-988 GENERAL.** The Inspecting Operator Maintenance Records Tutorial can be found at http://fsims.avs.faa.gov/Wdocs/JIT/Inspecting Operator Maintenance Records/menu/index.htm.
  - **A. Records.** Aircraft maintenance records include any records that document the work performed on an aircraft. A program manager/operator's aircraft maintenance records must be inspected periodically to ensure that they meet the requirements of the operator's recordkeeping system.
  - **B. Surveillance Criteria.** While inspecting a program manager/operator's aircraft maintenance records, principal inspectors (PI) must determine if all the work is based on instructions, procedures, or information that was approved previously or accepted by the Federal Aviation Administration (FAA). Such data can be in the form of:
    - Manufacturer's manuals;
    - Service Bulletins (SB):
    - Service Letters (SL);
    - Data included in the operator's approved inspection and/or maintenance programs;
    - Manufacturer/operator's approved Engineering Orders (EO) or authorizations;
    - Airworthiness Directives (AD), including Sensitive Security Information (SSI) ADs (generally applicable to part 121 air carriers); and
    - Other accepted documents.
  - **C. Personnel Identification Recording Requirements.** The program manager/operator's manual must provide for a positive means of identification, such as an employee identification number, for any person performing or approving work.

## 6-989 RECORD REQUIREMENTS.

**A. Retaining Airworthiness Releases.** (Applicable to part 91K operators who maintain program aircraft under a Continuous Airworthiness Maintenance Program (CAMP)).

- 1) Part 121 operators must retain the Airworthiness Releases for two months.
- 2) All of the records necessary to show that the requirements for the issuance of an Airworthiness Release are met must be retained until the work is repeated or superseded, or for one year.

## **B.** Total Time in Service Records.

NOTE: For the purpose of this paragraph, "time in service" with respect to maintenance time records means from the moment an aircraft leaves the surface of the earth until it touches down at the next point of landing.

- 1) Total time in service is the accumulation of "time in service" starting from the date of manufacture and continuing for the life of the aircraft. You must not confuse engine rebuilding and certifying to zero time in service with a zero time since last overhaul (TSLO) certification.
- 2) Zero TSLO certification does not affect the calculation of total time in service. When an engine is rebuilt and certified to zero time, the total time in service is zero (part 91, § 91.421).

NOTE: Only the manufacturer or the manufacturer's representative can zero time an engine.

**C. Life-Limited Parts.** Program manager/operators must have a current record of the status of life-limited items. This record indicates the present accumulated time in service of each life-limited item.

NOTE: Life-limited parts may not be rebuilt and certified to zero time.

- **D. Records of Overhaul.** A program manager/operator must maintain overhaul records of any item required to be overhauled. These records must be maintained until the work is superseded by work of equivalent scope and detail.
- **E.** Inspection Status. Inspection status defines the work that has been and is scheduled to be performed for the inspection or maintenance program. The inspection status records must show the following:
  - Type of most recent inspection;
  - The time at which that inspection was performed, expressed in terms of hours; cycles, or calendar time; and
  - The scheduled time and type of the next inspection.

**F.** Status of ADs. The program manager/operator must maintain a current status of applicable ADs, including the date and methods of compliance, and if the AD involves recurring action, the time and date when the next action is required.

NOTE: Only data specifically approved for AD accomplishment by the appropriate Aircraft Certification Office (ACO) is authorized.

- 1) All work programs should include the surveillance of ADs. You can use the following methods to accomplish AD verification:
- a) Actual surveillance of the AD being accomplished. This would also include a review of all paperwork, such as Engineering Authorizations, EOs, workcards, maintenance manual references, and SBs, to ensure that the AD is properly complied with.
- b) Physical verification of previous AD accomplishment. This should include verification, by record review, that the method of compliance is clearly recorded (e.g., paragraph, section, etc.), and if the AD requires recurring action, the time and date when the next action is due.
  - NOTE: Department of Transportation (DOT) Order 1600.75, Protecting Sensitive Unclassified Information (SUI), provides policy and guidance for protecting sensitive, unclassified information created or controlled by inspectors. AD actions that relate to national transportation safety or security issues fall within the scope of DOT Order 1600.75 and are defined as SSI.
- 2) SSI is a designation unique to the DOT's operating administrations and to the Department of Homeland Security (DHS). It applies to information we obtained or developed while conducting security activities, including research and development (R&D) activities. Unauthorized disclosure of SSI would:
  - a) Constitute an unwarranted invasion of privacy,
- b) Reveal trade secrets or privileged or confidential information obtained from any person, or
  - c) Be detrimental to transportation safety or security.
- 3) In general, only persons having the need to know will be given access to SSI ADs and have the duty to protect the information. Use protective measures to safeguard SSI ADs from uncontrolled release outside the FAA and indiscriminate dissemination within the FAA.
- 4) The "Final rule; request for comments" will only be issued after the compliance time specified in the "Sensitive Security Airworthiness Directive" has passed. If there are no aircraft on the U.S. Registry, only the "Final rule; request for comments" AD will be issued.
- 5) An AD resulting from SSI must be distributed only to need-to-know persons. Each Directorate must coordinate early with the Delegation and Airworthiness Programs Branch (AIR-140) and provide a list of affected operators for specific distribution.

6) An SSI AD is not posted to Regulatory and Guidance Library (RGL). A follow-up version of the AD is published in the Federal Register (FR) and RGL in the form of a "Final rule; request for comments" only after the compliance time specified in the "Sensitive Security Airworthiness Directive" has passed.

## G. Major Repair and Major Alteration Record.

- 1) An operator must prepare a report of each major repair and major alteration (not applicable to part 91K or part 135 operators).
- a) A copy of the major alteration report must be sent to the certificate-holding district office (CHDO) for review (not applicable to part 91K or part 135 operators).
- b) A copy of the major repair report must be available for inspection by the Administrator (not applicable to part 91K or part 135 operators).
- 2) Additionally, the program manager/operator must keep a list of all current major alterations (in addition to a current list of all major alterations, part 91K operators who maintain program aircraft under a CAMP and part 135 operators must also keep a current list of all major repairs).
- **6-990 REPAIR STATION RECORDS OF WORK PERFORMED ON A PROGRAM MANAGER/OPERATOR'S AIRCRAFT.** Since repair stations only have to retain records of work performed for two years, some operators have reported that maintenance records are not always available from repair stations beyond the two-year retention period. Since the program manager/operator is always responsible for obtaining and retaining the records required by the Administrator, advise operators to require a copy of the work documentation from the repair station at the time that the work is performed.
- **6-991 COORDINATION REQUIREMENTS.** This task requires coordination between the PIs, the operator, and with the Regulatory Support Division, Aviation Data Systems Branch (AFS-620), as applicable. If the task is performed by the office with geographic responsibility, coordinate with the CHDO PIs.

# 6-992 REFERENCES, FORMS, DATA COLLECTION TOOLS (DCT), AND JOB AIDS.

- **A. References.** Title 14 CFR Parts 39, 43, 65, 91, 121, 135, and 145, as well as part 129, § 129.14.
  - **B. Forms.** None.
  - C. DCTs.
    - 1) SAS Element 4.2.4 (AW), Recordkeeping (and SAS related element(s)).
    - 2) SAS Element 4.1.3 (AW), Maintenance/RII Training Program.

- 3) SAS Element 4.2.1 (AW), Maintenance/Inspection Requirements.
- 4) SAS Element 4.2.2 (AW), Maintenance/Inspection Schedule.
- 5) SAS Element 4.2.3 (AW), AD Management.
- **6)** SAS Element 4.3.1 (AW), Airworthiness Release/Maintenance Log Requirements.
  - 7) SAS Element 4.3.2 (AW), RII.
  - 8) SAS Element 4.3.3 (AW), MEL/CDL/NEF and Other Deferred Maintenance.
  - 9) SAS Element 4.3.4 (AW), Major Repairs & Alterations.
  - **D. Job Aids.** Job Task Analysis (JTA): 2.3.99.

## 6-993 PROCEDURES.

- A. Review the Office File.
- **B.** Inspect the Maintenance Records. Ensure that the program manager/operator has retained the required maintenance/alteration/inspection records for each aircraft, including airframe, engine, propeller, and appliances. These records must include the following information:
- 1) A description of the work performed (data acceptable to the Administrator) including the date of completion.
- 2) The name of the person performing the work, if the work is performed by a person outside the organization of the certificate holder.
  - 3) The name or other positive identification of the person approving the work.
- **C.** Inspect the Program Manager's/Operator's Record System. Inspect records to ensure that manual procedures are being followed. During inspection, document and photocopy any confusing areas, obvious omissions, or apparent discrepancies. Records checked should include the following:
- 1) Airworthiness Releases. (Applicable to part 91K operators who maintain program aircraft under a CAMP.)
- a) Ensure that part 121 operators retain Airworthiness Releases for at least two months.
  - b) Ensure that the Airworthiness Release signature is authorized by the operator.
- c) Review the signer's training record to ensure that the person is trained, qualified, and authorized to the level identified in the program manager/operator's manual.

2) Flight/Maintenance Logs. Obtain and review the flight/maintenance logs to determine the effectiveness of the Airworthiness Release procedures following scheduled inspections and nonroutine maintenance. Review the records to ensure the following:

- a) Flight discrepancies are entered after each flight.
- b) Corrective actions are related to the discrepancy.
- c) Corrective actions and signoffs are entered in the maintenance record in accordance with manual procedures.
  - d) Repetitive discrepancies are handled according to the manual.
- e) Deferred maintenance, as authorized by the minimum equipment list (MEL), is deferred in accordance with the operator's MEL and manual instructions.
- f) Required Inspection Items (RII) are signed off in accordance with the manual instructions.
  - g) The inspector was authorized by the operator to perform the inspection.
- **3) Scheduled Inspections.** Select or obtain work packages for scheduled inspections and ensure the following:
  - a) Scheduled inspections are properly signed off.
  - b) Generated nonroutine items are properly signed off.
- c) RIIs are properly identified and signed off by properly authorized, qualified, certificated, and trained personnel.
- d) Repairs are categorized correctly (major or minor) and approved data is being used, as required.
- 4) **Total Time/Cycle-in-Service Records.** Compare the manual procedures with the actual accomplishment of the total time/cycle-in-service records for the airframe, engine, propeller, and rotor.

NOTE: Although part 121 does not specifically call for time/cycle-in-service records of engines, propellers, and rotors, it is difficult for an operator to control the maintenance program without those records.

- a) Select and obtain a total time/cycle-in-service record for a sample number of aircraft to ensure that cumulative flight times/cycles are added to the record.
- b) Make a spot check of the cumulative total time/cycle-in-service against the flight logs to ensure that daily entries correspond to the flight log.

c) If the program manager/operator maintains a handwritten maintenance record for engines, compare the record entries to the aircraft flight log entries to determine the following:

- Overall accuracy, and
- The possible transposition of flight time/cycle-in-service, numbers, etc.
- 5) Life-Limited Parts Records. Compare the manual procedures for life-limited parts with the actual recording of the current status of life-limited parts. Select a random sample of records and ensure the following:
- a) All life-limited parts described on Type Certificate Data Sheets (TCDS) or in a manual referenced on the TCDS are noted.
  - b) The current status of each part is provided to include:
    - Total operating hours/cycles accumulated,
    - Life limit (total service life),
    - Remaining time/cycles, and
    - Modifications.
- c) The time/cycle limits on the operator's list are the same as those listed by the manufacturer.
- d) Life limits have not been exceeded. Select a sample of life-limited items that have been installed within the last 12 months and review records to ensure that life-limited time was carried forward from the previous service record.
  - e) If overhauled, the overhaul record is available.
  - f) The life limit of an item has not been changed as a result of the overhaul.
- **6) Overhaul Records.** Compare the manual procedures for maintaining the overhaul record with the actual overhaul record content.
  - a) Select a random sample of overhauled items to ensure the following:
    - Overhaul records are available for items selected.
    - The records contain a description of the overhaul,
    - The records show the time since the last overhaul,
    - The item was overhauled in accordance with the overhaul specifications by a qualified and authorized person, and
    - The component was approved for return to service by an authorized person.

b) Review removal/installation records of overhauled components to determine if the overhaul was done within the authorized time limits. Current regulations require these records to be maintained until the work is superseded by work of equivalent scope and detail.

## 7) Inspection Status Records.

- a) Compare the manual procedures for maintaining the current aircraft inspection status with available records. Ensure that the recorded daily flight hours/cycles are used to obtain the current inspection status.
- b) Take a random sample of aircraft inspection records to ensure that scheduled inspection times/cycles were not exceeded (overflown).
- **8) One-Time/Recurring ADs.** Request a random sample of aircraft AD compliance records to ensure the following:
  - a) The records contain all applicable ADs for the sampled aircraft.
  - b) AD requirements were accomplished within the effective times of the AD.

NOTE: Put a special emphasis on checking recurring ADs.

- c) The AD record contains the current status and method of compliance. The current status must include the following:
  - A list of all ADs applicable to the aircraft,
  - Date and time of compliance, and
  - Time and/or date of next required action (if recurring AD).
  - d) The record is being retained indefinitely.

NOTE: If any ADs have an alternative method of compliance (AMOC), ensure that the operator has obtained prior approval for that alternative method.

- e) The method of compliance is the same as specified in the AD or AMOC.
- f) The date of compliance is identical with the date on the current status list.
- g) The mechanic/inspector was properly trained and authorized to accomplish the work.
  - h) The accomplishment was properly signed off.
- 9) Major Alteration and Major Repair Records. This is also applicable to part 91K operators who maintain program aircraft under a CAMP.
- a) Compare the manual procedures for maintaining a list of major alterations and the reports for major repairs with the actual work records.

b) Compare a random sample of major repair and alteration records to the alteration and repair list and/or reports to ensure the following:

- Lists and/or reports contain the date of accomplishment and a brief description of the work, and
- The respective maintenance records show that the work was accomplished in accordance with approved data.

NOTE: When major alterations or major repairs are identified but not recorded on the above-mentioned list or report, request the actual maintenance accomplishment record and the FAA-approved data from the operator.

- **D.** Check the Program Manager/Operator's Procedures. Ensure the operator has procedures that detail how all maintenance records generated at line maintenance facilities or other off-site stations will be transferred to the facility where records are normally held.
- **E.** Analyze the Findings. Evaluate all deficiencies to determine if corrective actions will be required.

## 6-994 TASK OUTCOMES.

- **A.** Complete the PTRS Record. For part 91K, complete the PTRS record. PTRS comments should relate to the Airlines for America's (A4A) aircraft codes (ATA Spec 100 codes) of ADs being inspected. Comments should contain the numbers of each AD verified, the type of AD verified, and the complete inspection results.
  - **B.** Complete the Task. Completion of this task may result in the following:
    - A report of any deficiencies submitted to the CHDO if the inspection was performed by the office having geographic responsibility,
    - A letter from the CHDO informing the operator of the results of the inspection, and
    - An Enforcement Investigation Report (EIR), as applicable.

#### C. Document the Task.

- 1) For part 91K, file all supporting paperwork in the operator's office file.
- **2**) For parts 121 and 135 (10 or More):
- a) DCT Comments should relate to the A4A aircraft codes (ATA Spec 100 codes) of ADs being inspected. Comments should contain the numbers of each AD verified, the type of AD verified, and the complete inspection results.
- b) Complete the SAS process for Module 5, Analysis, Assessment, and Action (AAA).

**6-995 FUTURE ACTIVITIES.** Normal surveillance.

**RESERVED.** Paragraphs 6-996 through 6-1010.